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A Critical Assessment and a Hopeful Perspective

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Abstract

Water is the sector most comprehensively covered in European Union's environmental policy. An initial wave of directives accounting for public health protection and for harmonisation of environmental rules in the common market was followed by a call for a policy reform to address more properly realistic objectives, often conflicting in practical interpretation, such as environmental protection, subsidiarity and deregulation. The present paper discusses the evolution of EU water policy and examines critically how the various issues and objectives are brought together in the new EU water framework directive. The complex interplay of institutional and non-governmental actors in the formulation of European water policy is analysed, while finally its implications for the development and the ultimate character of the new, reformulated EU water policy are discussed.

1. Introduction

Approximately 27 years ago, at a conference of the Heads of State and Government of the European Community, it was decided to extend the common policy action to the field of environment. This resulted in the First Action Program for the Environment in 1973 followed by subsequent action programs (1977 to 1981, 1982 to 1986, 1987 to 1992) up to the current Fifth Framework Program (1993 to 2000). During this time, environmental and public health issues gained a prime position in the concerns of the European public. Moreover, scientific information on problems and solutions became increasingly available and new issues kept arising at the forefront of the policy agenda.

The initial emphasis of the Community's policy on the harmonisation of environmental rules in the common market and the protection of public health in the Member States gradually expanded so as to include the objectives of environmental protection and sustainable development. Environmental policy was built into the Single European Act of 1987 and finally became part of the Treaty of the European Union of 1992 (Maastricht Treaty). According to the treaty (Article 130r), the EU should preserve, protect and improve the quality of the environment at a high level, protecting human health, leading to rational utilisation of resources and promoting measures at an international level to deal with regional or worldwide environmental problems.

European environmental policy has been an integrated part of the evolution of European integration processes and European politics; in this respect, changes in the prevailing perceptions and approaches to the "European project" have also had implications for the development of the common environmental policy. Notions such as decentralisation and subsidiarity, coupled with the call for "deregulation", have meant that the limits of the EU in setting environmental rules for the Member States are under dispute. The principle of subsidiarity (Article 3b of the Treaty) restricts EU competence to those activities "that can not be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community". The search for a formula to achieve both EU-wide environmental protection and decentralisation is still on and best reflected in the debate on the reshuffling of the Union's water policy, the subject of the present paper.

Water is an elementary source of life. Its availability in sufficient quantities of sufficient quality are necessary for the very existence and prosperity of human beings, the economic development and well-being of society, as well as for the survival of animals and ecosystems. The importance of water has also been reflected in the Community's environmental policy; water was one of the first sectors of environmental concern to which the European Community directed its attention; the earliest measures date from the Community's first action program on the environment including directives for the quality of waters intended for drinking and bathing and a directive on the discharge of dangerous substances to the aquatic environment. These were followed by directives on the quality of water for fish and shellfish, the quality of drinking water and the discharge of substances to ground water. Finally, the most recent legislative rules in the early 90's include directives on agricultural pollution from nitrates and urban waste water. In summary, water is the sector with the most comprehensive coverage in EU environmental regulation, and for some the "jewel in the crown" of European environmental policy [Economist Intelligence Unit, 1989].

At present, EU water policy is at a crucial cross-road. Reports on the state of Europe's environment point at an alarming degradation of the Union's coastal, surface and ground waters. Moreover, new scientific evidence and public concerns have pressed for an amendment of public health standards for drinking and bathing waters. The piecemeal evolution of the legislation on a problem-by-problem basis led to a complex picture of water-related directives with differing and often conflicting methodologies, definitions and aims.

Evidence from shortcomings in the implementation of the first directives has mounted the calls for a re-consideration of approaches. The need to take integrated action for protecting the Union's waters, both for human and environmental purposes, was raised at various European fora. At the same time though, Member States, realising the costs involved in achieving the environmental and public health objectives of the directives and meeting local difficulties in applying EU wide regulations, have stressed the need for a decentralised, simplified and economically viable approach. Through an intense political process, a proposal for a new framework directive for water has resulted which is still discussed in the European Institutions.

The present paper will critically present the evolution and the current debate on the EU's water policy and intends to shed a light on the various, often conflicting, forces and principles that shape EU environmental policy formulation. In the following sections the historic "thread" of the development of EU water policy is traced and the major issues in each period analysed. This leads then the discussion to the currently proposed framework directive for water, a benchmark for the European Union's approach to environmental policy in the first decades of the 21st century. The directive is examined through an analysis of the complex interplay of issues and actors at the European level and their reflection in the chosen regulatory approach. The future prospect for the directive is eventually assessed. The objectives of the paper are three: first, to give a comprehensive report of the state and nature of EU's water policy; secondly, to analyse how different issues and "philosophies" are represented in it; and thirdly, to illustrate how this policy comes to be formulated in the European institutions' political arena in order to understand better its character, effects and limits.

2. The first "wave" of legislation – public health protection and harmonisation

Early European water legislation (1975 – 1980) began in its "first wave" of directives by setting standards for waters intended for particular uses and aiming to control the discharge of particular harmful substances to the aquatic environment (surface and ground water). The basic driving forces behind this "first wave" of legislation were "on paper" twofold: firstly, the harmonisation of environmental law to remove trade barriers and to avoid distortion of competition, and secondly, the protection of public health. As no specific competence was assigned by the first European Treaty of Rome to the Commission to develop legislation for environmental or public health issues, all directives unit1 1987 were based either on Article 100 of the Treaty on the harmonisation of member States' laws to allow the functioning of the common market and/or Article 235 which justifies intervention in policy areas where competence is not designated if necessary to achieve the other objectives of the Community. Richardson (1997) sees in the employment of the harmonisation articles of the Treaty an effective means for the Commission "to develop its competence" in a popular policy area (i.e. public health and environment) rather than a prime objective for the introduction of the directives.

European legislation was initiated with two key directives, issued in 1975 and 1976. The first one dealt with the principles and the standards necessary to improve and sustain the environmental quality of waters intended for abstraction as drinking water (COM 75 440)[1]. The second one regulated the discharge of dangerous substances into the aquatic environment (COM 76 464). A number of other directives has emerged from these two key directives, based on their two distinctive philosophies: water use directives which are concerned with the quality of water intended for particular uses and which set Europe-wide standards to be complied in all member States; and water pollutant directives which are concerned with the

[1] The first number denotes year of publication; the relevant legislative texts can be searched with reference to the full code.

control of emissions of particular pollutants to water, setting emission standards to be respected in all Member States [Somsen, 1990].

The water-use legislation includes the directive on the quality of surface water intended for the abstraction of drinking water (COM 75 440), the directive relating to the quality of water intended for human consumption, i.e. after it has been abstracted and is in the distribution system (COM 80 778) - recently revised by COM 98 83 (water standards to be respected "at the tap"), the directive concerning the quality of waters used for bathing (COM 76 160), and the directives (COM 78 659 and COM 79 923) on the quality of waters for fish and shellfish, respectively. All these legislative rules are based on "quality objectives", referring to a set of requirements which must be fulfilled by a given time in a given environment (or particular part thereof). In order to attain the quality objectives, environmental quality standards are fixed which, with legally binding force, prescribe the levels of pollution not to be exceeded in the relevant environment. These are set in annexes and divided into parameters related to G (guide) values and I (imperative) values, so that Member States are to establish parameters for the waters concerned which are to be no less stringent than the mandatory I values, and must endeavour to respect the stricter G values (Howarth, 1992). The Member States are required to identify or designate the waters within their area to which the directives apply and states have a considerable degree of discretion in this respect. The directives also incorporate a general non-degradation principle whereby implementation of the directives may not directly or indirectly lead to deterioration of the waters at stake. In some exceptional circumstances (extreme events, etc.) the directives allow for derogation from their requirements. The competent authorities in the Member States are made responsible for sampling, analysis and inspection in accordance with the provisions of each directive. The rules and procedures for the monitoring of the standards and the reporting on their implementation were subsequently laid down in a number of separate directives. The directives could also be adapted in the light of technical progress through a simplified procedure based on the setting-up of a committee of experts.

In contrast to this first class, the water pollutant directives do not relate so much to the state of the receiving waters as to the quality of permissible levels of discharges of particular pollutants and therefore, tend to concentrate upon emission standards. This legislation includes the directive on the pollution caused by discharges of certain dangerous chemicals into the aquatic environment (COM 76 464), as well as a number of "daughter" directives for specific substances and a directive for discharges to the ground water (COM 80 68). The directive on the discharges of dangerous substances has been a framework directive designed, with the aid of the subsequent "daughter" directives, to control discharges of substances from defined lists of pollutants that must be eliminated (List I) and pollutants which must be reduced (List II). For List I substances, the European Council of Environment Ministers must set "daughter" directives stating emission limit values, or alternatively quality standards in the receiving waters that must be respected prior to authorisation of discharges. For List II substances the Member States should come up with integrated programmes for the reduction of their emissions. The same philosophy is followed in the "ground water" directive. The "groundwater" directive is more "strict" as it deals with a more vulnerable source of water, and in this sense List I substances are to be prevented (prohibited) from reaching ground water, whereas for List II substances integrated programs should be introduced to restrict their access to ground waters.

There is much discussion going on about the effects of the first water directives. First, one has to distinguish between the intense activity triggered around the implementation of the drinking and bathing water-related directives and contrast this to the poor impact of the fish, shellfish and pollution-control directives. The extent to which the directives have in total generated a direct change in the quality of the Union's surface and bathing waters is very difficult to assess. Reduced concentrations of regulated point-source pollutants have been observed in European lakes, rivers and coastal waters, whereas an increase has been observed

for pollutants from unregulated diffuse sources [EEA, 1995]. To some extent such improvements could be attributed to increasingly stringent controls initiated by European legislation. The improvement of bathing water quality from 1986 to 1993, for example, can be partly attributed to the proper enforcement of the relevant EU legislation by Member States and partly attributed to additional measures taken by competent authorities.

More important however, are the additional "structural side-effects" that the bathing and drinking water directives induced, which in some countries caused a "chain reaction" that completely reshaped the landscape of environmental policy, eventually promoting the general objectives of the directives and setting the basis for future efforts for protection of the aquatic environment. Howarth (1992) states that "the general operation of the Community's environmental policy in the aquatic sphere has provided a momentous advance over previous legislation under our various national laws". The implementation of the water use directives has asked for the reform, if not complete change, of administrative structures in many Member States, redefining also the nature of environmental politics. Governments who previously were accustomed to run environmental manners in a "closed" and discretionary manner, were now obliged to report for their activities to a "higher", European "arbiter". Moreover, the setting of legally-enforceable water quality standards and the public availability of information on the compliance with such standards have "opened" the administrative structures, leading to a greater flow of information regarding pollution and quality of the aquatic environment [Centre for Rural Economy, 1993]. For example, pesticide contamination of drinking water probably would not have received such widespread public and political attention had it not been for European Directives.

A related side-effect of the legislation has been also the fostering of further research for technologies to comply with standards and for improving the scientific validity of the standards, which in turn have highlighted new issues and approaches.

Moreover, the directives have "re-enforced" themselves through a "domino" mechanism of regulation, public attention, public pressure and finally local action for compliance. Hassan (1995) looking at the case of the U.K, the most reluctant Member State to accept in principle the EU water directives, confirms the above analysis; he argues that the contribution of EU directives has been momentous in opening up the British administrative structures, establishing "open" monitoring and reporting schemes and consequently raising new issues and creating more public pressure for action. In turn, this effect has made governments more sensitive to environmental issues and more eager to comply with their formal obligations

The huge investments required for compliance have in some countries, and notably the U.K and Italy, led to significant institutional reforms in water management (i.e. privatisation of the service, establishment of new monitoring bodies, etc.). Hassan (1995) argues that the high investment costs related to the standards of the European water directives have been a major driving force for the re-organisation of the U.K. water industry, whereby in order to expand financial capacity for conforming with the directives' requirements the water service was passed from the public to the private sector (extending the financial base through shareholders). Moreover, Hassan also identifies a mechanism of "re-enforcement" of environmental protection through this process, as governments having transferred the water industry's assets and investment costs to private hands are less reluctant to accession of more strict standards.

Although the effects of the directives have been more profound in countries such as the U.K, where implementation and compliance became serious public policy issues, Ward et al (1997) also suggest that the impacts of EU water legislation on the administrative and monitoring structures of the poorer, Southern Member States have also been very important. Starting from a "lower" level of existing institutional and organisational strcutures for water management than the northern Member States, the effects of the directives in establishing new

agencies, running monitoring and sampling schemes and making governments accountable to the EU, have provided a massive force for reform, although the impacts and the investments down at the local level have been less impressive.

The effects of the pollution-control directives have not been so profound as those of the drinking and bathing water ones and this basically had to do with problems in implementing the framework "discharges" directive through specific "daughter' directives. The aim of the discharges directives was to introduce an emission-control approach to water pollution. The inherent advantages of this approach include the administrative simplicity of setting the standards, the prevention of cross-frontier pollution, and the equal sharing of the burdens of the measures to all industries. However, some Member States, and most notably the U.K, preferred a quality-based approach on setting emission standards which is more in-line with their decentralised pollution control policy and which also allows them to take advantage of the higher assimilative capacity of their waters. In practice the directive allows Member States to base their entire water policy on emission limit values calculated from quality standards that they have themselves established, with the sole exception of the substances for which standards have been set in daughter directives. As a result progress in the adoption of daughter directives has been disappointing due to the requirement of unanimity for Council decisions and to the re-surfacing of the debate over the appropriateness of quality standards for List I substances each time a new "daughter" directive was proposed. Only 18 List I substances out of a total of some 130 have been agreed to be regulated by the Council after a period of 20 years. For List II substances a few comprehensive integrated programs have been implemented by the Member States. Furthermore, despite the fact that amendments of the directive asked for Member States to draw up programmes for eliminating pollution of List I substances arising from diffuse sources, no such efforts have been reported to date. A study of 16 major EU rivers found that none of the Member States is completely in accordance with the requirements of the Directive [CEC, 1996]. The introduction of a new directive for the Integrated Pollution Prevention and Control from industrial installations means that many of the substances will be now regulated through this instrument, while for the rest a new mechanism for regulation is foreseen in the new framework water directive (see later).

The most important effects of the water use directives were discussed above but their implementation too was not an easy task. The discretion allowed to the Member States in designating the waters to fall under the provisions of the directives has been exploited in many cases in order to allow a relaxation of the directives' requirements. Research on the implementation of the water directives showed that where a great re-organisation of legislative structures or high public costs were involved, Member States, even the ones with the more developed environmental protection structures, exploited less clear clausures, or imprecise definitions of standards to "relax" the impacts of legislation [STOA, 1995]. In the U.K for example, initially only 27 bathing areas were designated for the whole of the country, fewer than the total declared by "landlocked" Luxembourg. Implementation problems have been more striking in the case of the fish and shellfish directives. The vagueness on whether the directives served an environmental or public health purpose and the ambiguity in the duty of the Member States to designate waters for protection, have limited their effectiveness. Member States have preferred to focus on public health quality control of the fish and shellfish than trying to introduce general protection of their waters. As a result the two directives, highly unsuccessful in their goals, are to be repealed in the new water policy.

One may draw at this point a general conclusion about the relationship between the nature and the success of the water directives: directives which tackled sensitive and easily understandable public uses (i.e. bathing and drinking water) had an important impact, more so because of the public attention they generated. Directives with less clear objectives, such as the fish and shellfish ones, where it was not clear whether they served public health purposes (that could in any way be better controlled by checking the quality of the final product in the fish market) or wider environmental purposes, and directives more difficult to be

conceptualised by the public (e.g. the discharges directive with the complex mechanism of the "daughter" directives), did not create the intended impact. The "public awareness triggering" dimension of the directives is therefore a critical factor for their eventual successful implementation.

3. The era of environmental protection – control of pollution

The effects of the first wave of directives were still to be seen in the mid-80s, though there was a general feeling that the European public responded positively to the initiatives of the Community for public health and environmental protection and asked for even further action to reverse the fast deterioration of Europe's waters.

In the Maastricht Treaty, the assignment of a European competence for a common environmental policy was formalised, and environmental protection became the focus of relevant action. Environment Ministers meeting in 1988 in Frankfurt identified a number of gaps in the Community action with respect to water-environment issues. Concerns evolved mainly around the deterioration of the environmental quality of coastal, surface and ground waters. The eutrophication of waters (from organic sewage pollution and diffusion of nitrates and phosphates from agricultural use) received prominence. Nitrate pollution raised also further concerns in view of the potential diffusion and contamination of drinking water supplies and the costs implicated for its treatment. "Prevention at source" was the key strategy declared in the Fourth Framework Program for the Environment, and guided the development of the two subsequent directives for the control of pollution form urban waste water disposal and the control of diffuse nitrate pollution from agricultural uses.

The directive concerning urban waste water treatment aimed at the collection, treatment and discharge of sewage from urban centres and specified industrial sectors (COM 91 271). Rules are set in the directive for the development of collection and treatment systems; the time-limits depend on the size of the communities and range from 1998 to 2005. As a rule the directive requires all agglomerations above 2,000 population to have sewerage systems and secondary, biological waste water treatment. More advanced treatment is required for so-called sensitive areas (i.e. water bodies in danger of eutrophication). For certain marine waters primary, mechanical treatment may be sufficient, if it can be demonstrated that the water quality of the receiving body is not adversely effected.

Concerns about the implementation of the directive were intense in view of the high public costs involved. The EU wide costs of the implementation have been estimated to Euro 150 billion (1994/95 value) during the period 1993-2005 (financing from the structural and cohesion funds is available for regions lacking in development). The latest report on the implementation of the directive by the European Commission (with respect to the relevant deadline of December 3 1, 1998 for providing collection and advanced treatment systems in all urban centres with more than 10,000 population discharging to sensitive waters) found the progress satisfactory, with the notable exceptions of the cities of Brussels and Milan which have announced to be unable to meet the deadline [CEC, 1999]. In the rest of the Member States, the directive has been transposed to national legislation and implementation programs have been established identifying the sensitive areas; the serious intentions demonstrated by all countries remain to be tested though in practice, as the full costs of implementation will have to be faced. The huge financing of construction works necessary to comply with the directive is expected to provide a new further "push" for the organisational restructuring of water management and the privatisation (full or partial) of the water industry. Water companies which had developed in advance sufficient sewage control systems were found in a comparatively better position than those with no developed structures. In an era of austere national budgets, it is difficult to see how national or municipal public water companies

which have not developed the necessary structures, can cope with the huge investments required, other than extending their financial base to shareholders.

The directive on the protection of waters by pollution from agricultural nitrates followed a different approach. The target was diffuse pollution and agricultural production is a much more difficult sector to control than the easily identifiable and clear in competency sources of urban waste water pollution. The approach chosen was more "structural" and of a framework character, setting the general elements of programmes to be implemented in the Member States to control agricultural nitrates pollution. This can be contrasted to the more specific, and goals/standards-setting requirements of the urban waste water directive. The nitrates directive called for the identification of all waters affected by pollution and those at risk, and the designation of these areas as "vulnerable zones". A monitoring and evaluation programme is provided in the directive intending to assist the Member States in choosing these zones. Once identified, action programmes are to be established for the zones introducing good agricultural practices, the principles of which are described in the Annexes of the Directive, including mandatory restrictions on the activities of farmers (e.g. through maximum annual levels for the spreading of animal manure on land). The Member States are also required to draw up codes of good farming practice to be implemented voluntarily outside these zones, and imperatively within them. Finally, nitrate concentrations in water are to be monitored to assess the efficacy of measures adopted.

The nitrates directive provided a first attempt of coupling environmental protection with decentralisation through framework action and its extremely poor performance gives a worrying "signal" for the effectiveness of framework-based action [European Parliament, 1998]. A recent report revising the implementation of the directive states that no country fully complies with the directive. Thirteen countries have been subject to infringement proceedings for non-compliance; five countries have even failed to designate vulnerable zones at all, while only Austria, Denmark, Luxembourg and Germany and Sweden have established "genuine" action programs [CEC, 1997]. The European Commissioner for the environment has described the situation as "totally unacceptable".

Once again, the differences in the success of the implementation of the nitrates and urban waste water directives support some of the conclusions of the previous section. Urban waste water is a more identifiable and "public related" source of pollution; the implementation of the directive has drawn much media attention and has figured high in the public policy agenda. Treating the sewage to protect the polluted coastal waters or rivers, that often constitute landmarks of the city was a clear and common shared "goal" for the predominantly urban European public. Moreover, the "price tag" of the directive is dispersed among the many urban dewellers and reflected in smaller, or larger, but on the whole acceptable changes in sewerage charges. Diffuse agricultural pollution is, however a much more difficult and politically delicate issue. In an atmosphere of a heated debate over the Common Agricultural Policy and the cut of subsidies, especially to the poorer predominantly rural regions, it is difficult to ask the farmers and producers to carry an extra, "environment-related" cost.

As the huge investment costs implicated in the directives, for improving and monitoring the quality of drinking water, controlling urban waste water pollution and protecting bathing waters, etc., started to be realised, reactions from the Member States to European water legislation augmented, expressing to an extent also the cost-related discontent of the industry, the agricultural sector, and in many cases, the public. Moreover, this climate coincided with a growing influence in the political domain of the call for decentralisation and the predominance in the political and economic sphere of the principles of liberalisation and deregulation. EU water policy was therefore caught in an important cross-road whereby the quest for protecting Community's waters from the continuous environmental deterioration had also to be coupled with calls for deregulation and subsidiarity, the latter also expressed as a prime Community objective in the new Treaty of Maastricht.

Reforming EU's water policy – subsidiarity, deregulation and environmental protection

Collier (1997) argues that although the principles of subsidiarity and deregulation could potentially contribute to a strengthening of environmental protection in the EU, to date short term political and economic realities have led to an exploitation of the "subsidiarity" and "de-regulation" concepts for the strengthening of national interests and the relaxation of environmental standards. The following discussion investigates the above argument in the context of EU water policy in order to demonstrate how positive elements from the three elements can co-exist and then to examine how this "marriage" is intended to be brought together in the new reformulated EU water policy.

It is widely accepted that the use of economic and market instrument provide many advantages for environmental management in comparison to traditional "comand and control" approaches. The concept of deregulation in environmental management refers to the use of less regulatory interventions in the advantage of more flexible, market-based approaches such as negotiated agreements, etc. Sustainable development needs a better intemalisation of externalities and a reduction of environmental impact-related market failures; economic instruments provide a best way to achieve such a goal. Especially in the field of water management, market instruments such as pollution and abstraction taxes, incentive or efficiency pricing for water use and waste water disposal, tradable pollution and abstraction permits, etc., provide great tools for efficient and strengthened implementation.

However, in the practical political arena of European environmental policy deregulation resumed a different meaning than that of the use of market instruments for the accomplishment of environmental objectives. Deregulation has been used together with subsidiarity as a response to the increasing costs of the water directives to generate a call for "repatriation" and "relaxation" of water standards. In the early 90s, and having started to realise the full burden of the costs of EU water policy, France and the U.K asked for the repeal of all key water directives. This was more a "political" reaction to increasing environment-related public costs rather than a well-thought resort to market instruments as a better way to water management. Although this "wave" of pressure for de-regulating EU water standards has now surpassed, it could once again emerge when the costs for the revised requirements of the bathing and drinking water directives will have to be faced.

Subsidiarity was "designed" as a term in order to reconcile the debate between "federalists" and "anti-federalists" over the future of the Union, and was formally expressed in Article 3b of the Maastricht Treaty. The central idea in the concept of subsidiarity is that action should be taken at an EU level when policy objectives can be best achieved at this level. In essence, this definition leaves its practical interpretation open to political agreement and definition on a case by case basis and therefore the way it will be perceived and implemented in the future, depends much on the wider dynamics of the European unification processes. Strong proponents of subsidiarity in environmental policy call for an "environmental federalism", whereby EU environmental regulation should be limited to transboundary issues and only minimum standards targeting severe environmental and health risks [Karl and Ranne, 1997]. On the other hand, a more "centralised" interpretation of subsidiarity includes issues where Member States cannot "sufficiently achieve" *(quotation from the Maastricht Treaty)* the objectives of the Treaties [Golub, 1997]. The reported continuous and increasing degradation of Union's water resources provides in this way a justifiable basis for intervention at an EU level.

In principle, subsidiarity in the sense of decentralised action is a necessary element of sustainable development. As the well known slogan "think globally – act locally" illustrates, environmental protection can best be achieved at the local level, and decisions should be

taken and implemented at the level closest to the problem and with a representative participation of all implicated local actors.

A review of the implementation of EU water directives from Ward et al (1997) found that "the model of [centralised] harmonisation embodied in EU water use directives is not an effective means of implementing sustainable development". Criticism is focussed on three areas:

First, that environmental regulation designed at a high "European" level often does not account adequately for the variety of problematic situations experienced in the Member States and the different relevant priorities. The authors point to a "rural-urban" distinction of water problems, in addition, or in place, of the traditionally perceived "north-south" division and identify the imposition of inappropriate environmental agendas from northern to southern Member States or from urban to rural areas, as a major source of shortcomings in implementation.

Differences are certainly more striking between urban northern areas and rural southern ones. For example, in most southern Member States water as an environmental problem tends more to be related to restrictions in availability, and acute drought period shortages rather than with the polluted rivers and ground waters of the north. The research committee of the European Parliament, for example, in its amendments to the new framework water directive put forward by Spanish Parliamentarians states that "it is difficult to understand why the Commission . . .makes the issue of the quantity of water subordinate to the qualitative aspects of the resource, since this approach is currently being superseded by events" [European Parliament, 1998]. This of course does not imply an inherent difference in the "real" nature of the problem in different European regions, but certainly a contrast in perceived priorities. Southern states tend to be urbanising nations where there is little social demand for environmental intervention and higher priorities tend to be given to economic growth. Coupled with the specific dry and arid climatic and hydrologic conditions, it becomes evident why in the countries of the south, water management remains still a question of "development" and "quantity" and not "environmental protection" and "quality". Moreover, Ward et al (1997) argue that the focus of European water policy on the notions of public health and environmental quality as public goods stem from long-urbanised states with high population densities and are largely irrelevant to local rural experience. The underlying argument is therefore that there is an inherent difficulty in coupling "rural" and "urban", "northern" and "southern" concerns under common, strictly defined standards and expecting "harmonised" implementation and results across the Union.

Along similar lines is based the argument on "environmental conditions", in other words that EU designed and all-encompassing legislation is not appropriate to tackle the variety and multitude of situations and problems in such diverse areas such as Luxembourg and the Greek islands, for example. The emergence of the "diversity" factor in the political agenda received prominence especially with the entrance of the U.K to the European Community. The general belief in the U.K was that the special geography of the country and the high assimilative capacity of its waters rendered inapplicable to some extent the water directives. This led to negotiations about emission limit values for pollutants based on the "best available technologies" vs. values based on environmental quality standards of the receiving bodies, the U.K arguing that discharge limits should be set, if so desired, with respect to the levels of pollution detected in the receiving waters. The outcome was the aforementioned "deadlock" in the dangerous substances directive, between the emissions control approach of countries such as Germany, etc. and the traditional British setting of standards based on the dilution of receiving waters. Consensus, given the relative implications for the national industries, has been very difficult to reach. This highlights the political problems in a "special conditions" approach, as derogation of one Member State from common standards is considered by the rest as an attempt to "free ride" protecting national competitiveness.

The third argument against centralised European approaches to environmental protection, and more specifically in our case water, comes from the mismatch between the monitoring requirements of the directives and what is practically feasible in the poorer Member States [Ward et al, 1997]. The directives are developed with reference to the well developed administrative and monitoring structures of the "front-running" in environmental protection states, but the development of such structures in the "lagging" nations is a slow and long-term process. In practice therefore, effective implementation in the short term is-non-realistic and poorer Member States are more anxious to be "seen to be complying" rather than really complying with the directives.

Another line of criticism for centralised approaches to environmental control and a call for "environmental federalism" comes from an economic efficiency perspective [Karl and Ranne, 1997]. The argument focuses on the following points:

- as different environmental conditions exist in different regions, harmonisation will lead to variable costs between differently located firms; harmonisation induces inefficiency and impairs the international division of labour, because countries richly endowed with environmental capacity are prevented from making use of their comparative advantage;
- higher administrative and implementation costs are necessary for proper centralised implementation;
- a decentralised environmental policy can render "good environmental quality" a "soft" factor for locational decisions of firms and skilled employees leading thus to an improvement of the state of the environment by fostering an institutional competition between the Member States for supplying better environmental conditions;
- the Member States themselves are in a best position to express the collective preferences of their citizens, and different combinations of income and environmental quality may be desired than those set at a central European level.

Evidence, however, does not support all of the above arguments; competition for lower environmental and water pollution standards as an indirect "subsidy" to local production sectors or incentive to attract foreign investment is more often the case than competition for "water quality" as a soft "location" factor. As most political decisions are taken with a short term and sector specific perspective and as national policy makers are often not aware of the full costs of environmental degradation, it is difficult to see how in practice "environmental federalism" can promote a competition for highest environmental standards.

From the above discussion on subsidiarity and water policy, two key questions emerge:

- is there a justification for the EU to regulate Member States on how to protect their waters, or in other words, why should not modem European democracies be able to recognise and protect the value of the aquatic environment of their own countries?
- is it practically feasible to design and implement action at a central European level?

On the question of justification, the discussion presented in the second section of this paper seems to provide a positive answer. European water directives have had a major impact in the way most Member States deal with water management. Also evidence from the U.S., shows that federal legislation has been a major driving force for the implementation of sustainable water management at the state and local level. The recently revised U.S. drinking water Act asked all states to process their public water supplies with filtration, unless they can prove that a watershed protection programme is implemented which protects the quality of the resource to a level that filtration may not be necessary. This federal mandate has signaled a major shift in cities' water policies and practices and moreover, with important effects on the overall re-organisation of water management [Platt and Morrill, 1997]. As the costs for filtration treatment are high and are to be covered fully by cities' funds, the city of New York, for

example, opted for the alternative watershed management approach. New York has signed agreements with all watershed localities for the implementation of a comprehensive and intensive watershed protection programme; provisions of the agreements involve financial assistance by the city to the localities even in the form of wider development grants [Platt, personal comm.]. In a similar fashion, the federal mandate for all major cities to treat their sewage had major implications for the city of Boston [Platt, 1995]. A new public institution, the Metropolitan Water Resources Authority, was established in the area to organise the financing of the construction of the huge waste water treatment plant (the reason for the establishment of a new agency has to do with U.S laws for the financing of public works and is beyond the purpose of the present analysis). As a "side-effect" the new institution brought a new "wind of change" in all facets of water management in the Boston metropolitan area; the deadlocked debate between an engineered diversion of the Connecticut river to satisfy the water needs of the city and the implementation of a comprehensive water demand management programme, was resolved in favor of the latter with an eventual success in reducing total demand in the area by 20%, within the safe yield of the system and averting the strongly disputed diversion of the river [Platt, 1995].

A comparison of U.S and European experiences points therefore to the very important role of initiatives at a higher, "federal" level in order to induce a series of changes at lower geographical levels, where short term, local considerations, which cannot account for full intemalisation of environmental costs predominate. In a climate of strong economic competition between Europe's regions, there seems to be a good case for a "guiding" intervention at a European level; the question is what form should that intervention take, and this refers to the second question addressed above.

It is recognised that both conditions and problems/priorities vary widely between the Member States. Moreover, monitoring and enforcement by the Commission of the implementation of strict standards at the country level requires massive resources; the extent also to which the European Commission has the competency to exert such a control is questionable. A broader policy framework which would provide the objectives and the guidance for the action to be taken, allowing for problem-tailored equivalent practices in the Member States, seems to make more sense and it is this approach adopted by the Commission in its new framework directive, discussed in more detail in the following sections.

5. Reforming EU's water policy – the new framework directive

Following the process of adoption of the urban waste water and the nitrates directives, three new proposals were made by the European Commission. These included revisions of the standards for the bathing and drinking water directives (1994), a new directive on the ecological quality of water (1993) and a revision of the process for the deadlocked discharges directive. These new proposals were caught in an atmosphere of heated debate on the merits of environmental protection, subsidiarity and deregulation as discussed above, and "shaded" by the high costs required for the implementation of the waste water directive. Serious calls emerged for an end to Community's legislation for water and a repatriation of many of the existing measures.

The call for a relaxation of EU water regulation gave birth to the process of revising the drinking and bathing water standards, taken up though by the Commission in a considerably different manner. Taking as a starting point that public health protection should in no way be compromised, the idea was to revise the scientific validity of the standards and to re-assess the costs of enforcement versus the public health risks involved, repealing the parameters that did not pass the test and simplifying the regulatory picture. According to the Commission, only those parameters of significance to public health have been retained, their values adjusted in the light of current scientific knowledge. The key actions in the drinking water

(i.e. water at the tap) directive, for example, were the maximum authorised levels for lead (10 micrograms/litre of water instead or previously 50) which meant that in many countries long used lead pipes would have to be substituted, nitrites (0.5 milligrammes/litre) and pesticides (0.5 micrograms / litre for all pesticides and 0.1 microgramme / litre per pesticide); in total in the new revised directive, standards are set for 48 chemical and microbiological parameters including limits for Zinc, Copper and Nickel. In the drinking water directive, there has been an important controversy around the standards for pesticides, as the values set in the directive affect the market authorisation of pesticide products. The industry opted for separate standards for each type of pesticide based on toxicity tests. The Commission however, has adopted the so-called "precautionary principle"; in the absence of sufficient scientific data to back specific standards a precautionary "zero tolerance" approach is preferred. The limits for individual pesticides in water are set at the minimum detectable level of 0.1 microgramms per lt for individual pesticides and 0.5 microgramms per lt for the total concentration of pesticides. In practice this means that if a pesticide is detected in drinking water reserves, its authorisation is at stake. Environmentalists would like to see the "precautionary principle" extended to other substances suspected of carcinogenic or teratogenic effects.

While for the drinking water directive, a wide consensus on the revised parameters was reached (the directive was finally adopted in 1998), for the bathing water directive there has been an intense scientific debate around the validity of revised micro-biological parameters. Ironically enough, many commentators suggest that having repealed in the directives parameters that in practice were not targeted by the Member States and having introduced other new, stricter standards, the total costs of implementation had once again increased instead of decreased, as was the initial purpose of the revision. The final adoption of the directive is expected to be delayed as the revised parameters are highly disputed, scientifically and politically.

The key directive however, for Community'a action for the aquatic environment was to be the directive for the ecological quality of water. The directive was a "child" of the water use directives' philosophy, the use in that case in a more abstract way being related to the ecological value of water. Member States were asked to come up with specific programs for achieving a good ecological status for all their surface waters, "good ecological" quality broadly defined in descriptive terms in the directive though left to the discretion of the Member States to define the exact standards; one can see in this approach elements of the quest for subsidiarity. The directive generated a wide debate around EU water policy, as it was realised that it would decide the future of the Union's water policy for many years to come. The agreement in the wider "water policy community" was that the directive fell well short of expectations, as it confused instead of clarifying the overall legislative picture. As all the proposed directives started to be discussed in the European bodies, Member States felt "flushed" with a number of conflicting and incoherent regulatory measures for water, at a moment when what they most wanted was a simplification of the picture and a reduction of the implicated costs. The same questions, debates and dilemmas between environmental protection, standard setting, subsidiarity and cost kept re-surfacing in all discussions and it became evident that a major and integrated re-thinking of Community's water policy was necessary. Proponents of less environmental regulation at a European level were pointing to the increasing complexity of the legislation and the introduction of unnecessary additional standards. The directive on the ecological quality of water was obviously limited in scope to account for all these issues. First, it did not account for the call for integrated water management at the river basin level, which was successfully exercised in the management programs of the Maas, Schelde and Rhine rivers. Secondly, it was not clear how its objectives and instruments related to the rest of the legislation. Finally, there was a shortcoming in accounting for quantitative issues, which provided the prime concern for many Member States.

Calls for a new policy were echoed in European Parliament's public hearing in June 1995, and the Commission accepting requests, initiated an open consultation process, inviting comments from all "actors" for a fundamental reshape of the policy. As a response in mid-1995 the Commission issued a communication for a new water policy and opened a consultation procedure to all interested parties which culminated on a two day Water Conference in May 1996. The outcome of this consultation process was the agreement on the general principles and goals for the new framework water directive, which appeared in draft form in November 1997, coming to substitute the directive on the ecological quality of water and the directives for the quality of surface drinking waters and fish and shellfish waters and to incorporate a new system for the regulation of the discharges of dangerous substances to the aquatic environment.

The proposed framework directive aims to incorporate all requirements for water management into one single system. The river basin (a natural geographic and hydrological unit) is set up as this system and Member States are asked to come up with river basin district authorities (new or re-organised older structures) and management plans from each one that will aim to achieve the goals of the directive. The key guiding goal of the directive is the achievement of a "good" status of ground and surface waters by 2010, "good' meaning that water meets the standards established in existing environmental protection directives and in addition, the new ecological quality standards. A water is defined as of good ecological quality if there is only slight departure from the biological community that would be expected in conditions of minimal anthropogenic impact; a detailed common procedure to define "good ecological status" criteria in the different basins is provided together with a system for ensuring that each Member State interprets the procedure in a consistent way. "Good chemical status" is defined in terms of compliance with all the quality standards established for chemical substances at European level; a procedure for renewing these standards and establishing new ones, i.e. a new mechanism for controlling the discharge of dangerous substances, is provided and it comes to replace the "deadlocked" discharges directive. In the question of emission limit values vs. environmental quality standards for the discharge of pollutant substances, the Commission adopted a "pro-environmental" stance welcomed by the European Parliament, based on the "combined approach" where both limit values and quality standards would be legally binding and would have to be respected.

Water for other uses, such as bathing, should conform with the more specific standards of the relevant directives. The river basin authorities are asked to designate all specific protection zones within their area (i.e. bathing, drinking water or protected natural areas); therefore, good ecological and chemical status is the minimum for all waters but where more stringent requirements are needed for these particular uses, zones should be established and higher objectives set within them. Other existing legislation, such as the urban waste water directive and the nitrates directive, are considered as tools to achieve the objectives of the river basin management plans. If however, objectives are not achieved, authorities should design whatever necessary additional measures.

The directive also sets new rules for ground water. All direct discharges to ground water are prohibited and a requirement is introduced to monitor ground water bodies so as to detect changes in composition due to diffuse pollution and take measures to reverse them. Moreover, a "quantitative" dimension is introduced by setting the principle that ground water should not be abstracted at higher rates than its natural replenishment rate; in line with the philosophy of the directive a procedure to define these rates in different basins is given.

A final provision, that has encountered serious reactions, is that of "full cost recovery pricing", by which Member States are asked to ensure that the price charged to all water consumers (public and producers) reflects the true costs of the service. Full pricing is considered as a basis for water conservation and water-use efficiency. Generous derogations are reserved for certain cases, and in all cases the Commission seems to recognise the limits

in implementing such a measure, but believes that even at a minimum the transparency that will result as Member States will have to declare the water-charging subsidies granted to different sectors, will be a serious impetus for rethinking practice and redistribution of costs, eventually leading to more efficient use of water.

The directive, respecting the principle of "subsidiarity", came to set only the objectives to be fulfilled by Member States (i.e. good quality of all waters), defining the organisational structure (river basin agencies) and mechanisms (existing legislation and further measures) to achieve them. The directive best exemplifies the new approach in Union's approach to environmental policy, where environmental protection is "married" with subsidiarity through the division of "objectives at a European level – standards/measures at a national". Past water directives, such as that for surface waters intended for drinking or the fish and shellfish ones, are to be repealed by the existing framework directive. This satisfies the call for "simplification / de-regulation" of the existing legislative picture which proved in many Member States difficult to comprehend, not mention implement. On the other hands, the Commission considered that public health related standards (such as those of the drinking and bathing water directives) should not be affected and rejected calls for deregualtion and repatriation of measures, continuing to set standards at at a European level. One can see in this approach elements from all different "philosophies" discussed above, i.e. environmental protection, de-regulation and subsidiarity. Moreover, elements of the economic instruments approach (i.e. introducing the full cost recovery principle), quantitative concerns (in setting minimum flow objectives for rivers and abstraction limits for ground waters) and the quest for integration (i.e. river basin management with representation of all stakeholders) are all represented in the directive.

Criticism to the directive is of course abundant from both the more "pro-centralised" and "pro-decentralised" sides of the political spectrum. The proponents of a more centralised "pro-environmental" approach argue for more precisely defined standards pointing to the exploitation by the Member States of unclear points, obligations or room for derogation in past legislation as a way to decrease implementation costs. The emerging failure of the nitrates directive which is based on a framework type of action is thought to justify their concerns. The solution, it is argued, is tighter legislation at a European level and greater enforcement and implementation competencies and capacities at a European level, perhaps even through the establishment of an environment inspectorate that could carry "in-situ" visits to the Member States. On the other end of the spectrum stand the proponents of "decentralisation"; they argue that responsibility for all water legislation, apart from that dealing with transboundary problems or that setting minimum public health standards, should be returned to the hands of national governments. There had been for example, even talks of a "multi-speed" Europe on drinking water standards, where some Member States would be allowed to derogate from the requirements for the chemical parameters.

The proposal for the new framework directive is still discussed between the European Parliament, Council and Commission. It has drawn various comments and critiques from all sectors of the society and the economy and its final formulation will be clearly the result of a complex political balance of objectives and realities. In order to understand therefore better the nature of the proposal, its fate and the implications for EU water policy and eventually water management down at the local level, we will shift the focus of the analysis to the politics and actors involved in formulating EU water policy. Only then a full comprehension of the dynamics and trends in EU environmental policy will be gained.

6. Adopting the new framework directive – actors and politics in EU water policy

The model of actors and politics in EU water policy formulation presented in this section draws much from Richardson (1997), who analysed EU water policy networks based on research related to the activities of the September 1993 Commission's Conference on EU drinking water policy, and the experience of the author of the paper in the preparation and proceedings of the public hearing of the European Parliament on EU water policy in June 1995.

Mazey and Richardson (1993) describe the EU policy process as a multi-national, neo-federal system, extremely open to lobbying by a wide variety of organisations. Richardson (1997) describes the EU water policy process as "a rather messy amalgam of interrelationships between non-governmental actors and formal institutions.

The formulation of EU water policy takes place within the core of the European Institutions, i.e. the Council of Ministers, the Commission and the European Parliament. Figure 1 gives a general graphic sketch of water policy actors and their interrelationships.

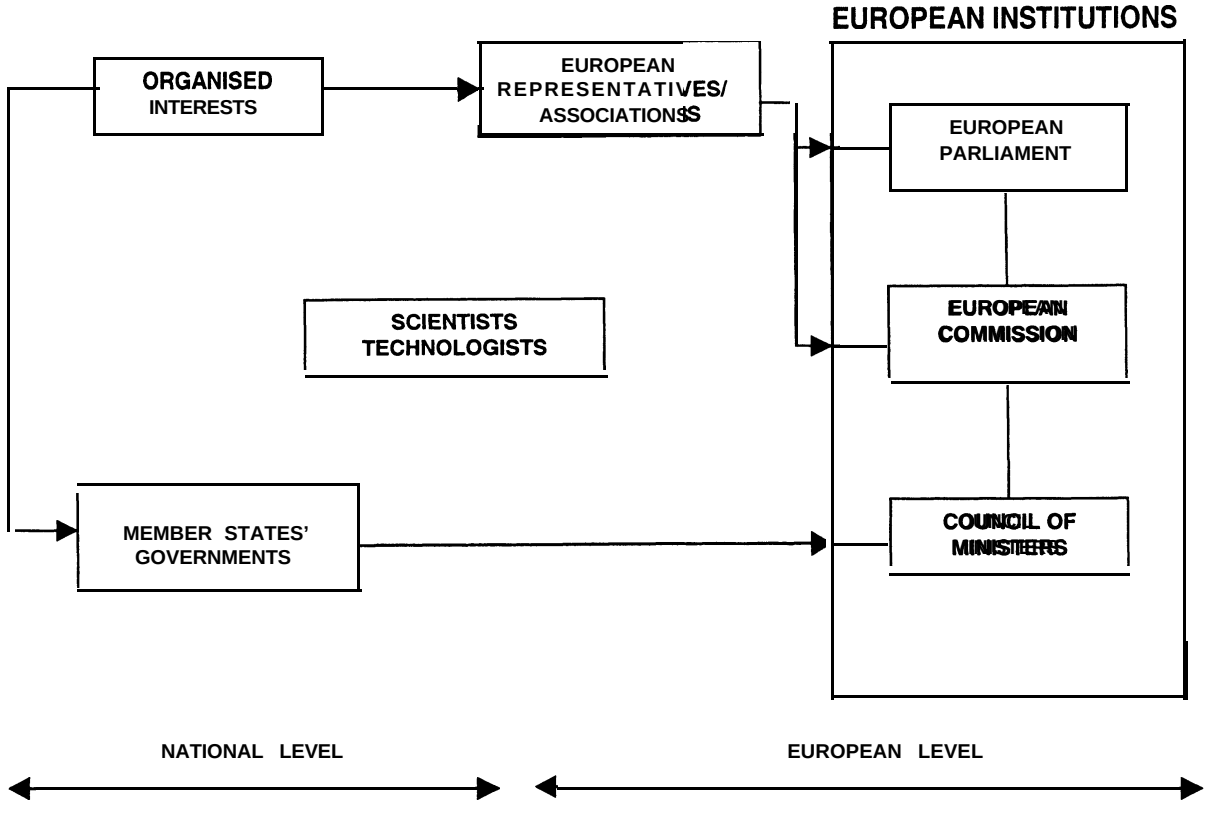

Figure 1: Actors active in the EU water policy process

The general objectives and directions of the policy, e.g. more environmental protection, decentralisation, deregulation, etc., are typically first expressed by the Council (e.g. in Ministerial Seminars, Conferences, etc.) in general terms through common statements, agreements, etc. These may also include references to more specific concerns and areas for action (e.g. waste water treatment, ground water depletion, etc.). The Commission has then the role to develop in detail these policy directions into the appropriate policy texts, and in the

case of legislation, draft directives. The European Parliament has a very active role in water policy-making and influences the policy process both by preparing its own positions, statements (recommendations) and activities (e.g. public hearings) and by its institutional responsibilities in amending the legislation. Surrounding the formal institutions is a number of non-governmental associations or organisations representing at a European level sectoral interests. Evidently these include representatives of sectors affected by water-related regulation such as water utilities, agricultural and industrial associations, the crop protection industry, consumers' organisations and environmental groups[2]. The European level of decision-making is an "aggregate reflection" of decision-making at the national level, where local organised interests influence national positions, which in turn, through the Council (or more rarely, through Parliamentarians) enter the European policy process. A last group that affects the water policy process, but is not a direct "stakeholder" in it, are scientists and technologists. They are typically consulted by the European institutions or the national governments (especially in relation to the highly technical drinking and bathing water standards), and their position in problems and solutions is critical for the character of the policy.

After the Single European Act of 1987, the approval of the water legislation followed the procedure of "cooperation" between the Council and the Parliament. The Council, with majority voting, decides on its position based on a draft prepared by the Commission. The European Parliament can amend the Council's draft legislation. If the opinion of the Parliament delivered at its first reading is not sufficiently taken into account in the resulting Council's common position, the Parliament may reject the proposal on a second reading. The Council can overturn the Parliament's rejection only by a unanimous decision. Since unanimity is difficult to achieve, in practice the Council seeks conciliation with the Parliament to prevent its proposals from being paused or even rejected. The Treaty of Amsterdam increased considerably the powers of the European Parliament. The procedure of co-decision was introduced as the new rule, and the proposal for the framework water directive will be approved through this mechanism. In the co-decision process, if the Council fails to take due account of the Parliament's opinion in its common position, the Parliament can prevent the adoption of the proposal and if the Parliament decides to reject the proposal, it cannot be adopted by the Council. To prevent rejection, a Conciliation Committee must be set-up to seek a compromise before a third reading by the Parliament. If agreement is still not reached, the Parliament can reject the proposal definitively. Evidently, through the co-decision procedure the importance of the European Parliament in the formulation of water policy increases, and as it will be discussed below, this might have significant implications for future developments in water policy.

Despite the central character of the Council in European decision-making, water policy in comparison to most of Union's policies processes follows much less an "intergovernmental institutionialism" model in which decisions are the result of a bargaining process between the Member States within the Council of Ministers. Such a model may have been more prevalent in the formulation of the "first wave" of Community's legislation at the early 70s and certainly at the process for the adoption of "daughter" directives for the regulation of dangerous substances. More recently, however, water policy making sees an increasingly more active role both from the Commission and the Parliament, although the Council always remains the ultimate institutional authority to approve the policy. As the costs of past water legislation are realised, some Member States, with U.K as the frontrunner, tried in the early

[2] Some of the most active organisations in water policy at a European level are:
EUREAU – *European Union National Associations of Water Suppliers and Waste Water Services*
COPA/COGECA – *General Committee of Agricultural Co-operation in the EU*
UNICE – *Union of Industrial and Employers Confederations of Europe*
EUROCOOP – *European Community of Consumer Co-operatives*
EEB – *European Environmental Bureau*

90s to increase their influence in policy direction with regards to calls for "de-regulation" and "decentralisation".

The "national" stances of the Member States in the key issues are certainly of great importance in any attempt to assess the Union's water policy, especially in understanding also later shortcomings in implementation. Most Member States, and more characteristically those of the poorer south, may follow the general policy "wind" at the formulation phase as they would not like to be seen to oppose processes of European integration for a "secondary" European issue such as water, although in reality they may be unwilling or incapable of fulfilling the legislative requirements. From this perspective the objective at the policy formulation stage becomes to keep as many "windows open" for derogation at a latter implementation phase. In essence this is the cause of the erosion of the implementation of the legislation and the reason why environmentalists argue for more "centralised" directives, with specific definitions and standards and minimum allowances for derogation.

A grouping of the countries with respect to their stance to the main water policy issues is a rather rough task, as different issues touch different Member States national interests and therefore cause different positions. At a general level, however, one may distinguish between:

. States with well developed water environmental legislation, such as Germany, Denmark, and the three newly accessed countries (Finland, Sweden and Austria), who push for stricter environmental protection rules (as a result of domestic pressure) and want also to see other countries catching up with their higher standards (because of the implications of higher standards for the competitiveness of local industries);

. States, such as France and the U.K, who are particularly concerned with the high costs entailed in the proper implementation of the water directives. Meeting the requirements of the waste water directive has been estimated to require an investment of 10 billion pounds in England and Wales and 8 billion pounds in France [Haddon, 1994]. The costs for replacing lead pipes to conform with the new drinking water directive are also particularly high; in France they are estimated at 120 billion F.F and caused the General Assembly of Local Councils to call for a total pause in European water legislation [Europe Environment, 1997].

- The countries of the south, which in general have weak administrative structures and capacities in order to face the costs of the directives, and therefore face great difficulties in implementation, but as discussed above, do not hinder the formulation of the policy. These States, having a less environmental-aware and pressure-group organised public than the countries of the north (such as France or the U.K) feel also less political pressure in the implementation phase. Moreover, as most of Commission infringement proceedings against Member States depend on "whistle-blowers" from the public, southern Member States face less infringement processes in comparison to their northern counterparts than their real implementation record would suggest.

The stance of the Member States with respect to the centralisation - decentralisation issue depends both on their stance on the future of Europe (more "federate" or not) and their conceptions of subsidiarity. U.K and Denmark for example, would like to see less power at the EU level and to regain control over various policies, whereas for others (such as Germany and Spain) subsidiarity basically is important in order to maintain the autonomous character of their regions or the distinctive character of their regulatory system (e.g. Netherlands). Their stance therefore with respect to the centralised or not character of water policy depends on how these objectives are affected by specific water legislative pieces.

Recent political changes in the U.K and France have somewhat eased the pressure for "de-regulation", though a resurgence of the climate should be expected, especially as the costs of the waste water treatment and drinking water directives will come to be faced. Germany, a past primer mover in environmental policy, after the unification of East and West Germany and the emerging economic problems, has become more "inward looking". The impact on

water policy from the accession of Austria, Finland and Sweden, countries with well developed environmental protection structures is still to be seen.

The Commission in view of its central role in formulating the legislation at the first place has a key role in the water policy process. Some characteristics are of particular relevance to the formulation of the water policy:

- Water policy is the responsibility of the Directorate General for Environment. This implies a positive inclination towards stronger environmental regulation and pro-environment stance in relevant issues (i.e. precautionary principle, reinforcement of standards, etc.). For example, as discussed in section 5, the pressure of some Member States to deregulate the standards for drinking and bathing water quality, taken up by the Commission resulted in new tougher standards for the key parameters and repeal only those which were not targeted in practice.
- As a bureaucratic organisation it has to "safeguard" its importance in the policy process and further regulation serves such a purpose. Therefore, the Commission should be expected to favour expanded and more centralised actions for the environment, though as Richardson (1997) puts it "this is matched by a new caution in the development of new policies, in order to avoid too many 'nanny state' accusations".
- Compared to the tasks it faces, the Commission has little resources; this means that it is open to advice and consultation from outside actors and specialists. In turn, this gives rise to an "open" policy process, as described above, where many non-governmental organisations or associations and scientific experts play a particularly important role.

The European Parliament has an exceptionally active role in water policy compared to other European policy areas, not only participating in the amendment of legislation but also putting forward its own initiatives (e.g. the Public Hearing on EU water policy in June 1995) and resolutions. Water policy belongs to the domain of the Environment Committee of the Parliament which has a clear and strong "pro-environment" and "pro-centralisation" stance supporting the setting of strict environmental standards at a European level and thereof enforcement (i.e. through tough implementation procedures and even the establishment of an environment inspectorate under the auspices of the Environment Agency). The Parliament has an important role both in setting-up the policy agenda and in formulating the final policies (for example, initially as much as 300 amendments were put forward for the framework directive proposal). Its ability also to draw public and media attention to Member States' failures in environmental issues, means that both the Council and the Commission are cautious of its position, even more than its "official" standing in the policy process would suggest. Furthermore, given that future water legislation will be decided through the co-decision procedure and the importance of the Parliament will increase, a reinforcement of environmental concerns in the content of water policy should be expected*.

From the above analysis, it seems that the objectives of the Parliament and the Commission could in many cases be on the same side (i.e. more environmental and centrally-controlled legislation). Indeed, as Richardson (1997) quotes from Judge (1992), there is a "suspicion" in the Council that there exists an underlying relationship between the Environment Committee of the Parliament and the Environment Directorate of the Commission, where the Parliament's Committee plays the role of the "opposite pole" on Council pressure to the Commission for relaxation of standards, deregulation, etc. One should not, however, overlook that in addition to the water-related agenda, there is also the a wider agenda related to the share of powers between the three institutions. In this respect, the Parliament fiercely

* Nevertheless, the role of the Parliament's Committee in the formulation of water policy should not be taken as granted, as it has been developed and characterised by personal initiatives of leading "pro-environmental" Parliamentarians. The changes in the composition of the Committee after the June 1999 European elections may have profound effects on the role of the Parliament in the water policy process, which are to be seen.

confronts measures it sees as threatening the importance of its role in the process. More specifically, provisions put forward by the Commission in environmental directives relating to the revision of standards or other provisions through closed "special regulatory committees", without the participation of Parliament or Council representatives arise strong reaction from the Parliament as it considers them as attempts to side-step its role. The importance of such issues in the water policy formulation process has to be understood in the wider perspective of "bargaining" between the institutions, where the Parliament putting "comitology" at the forefront of its agenda may surrender some ground in its "environment-related" positions.

Intervention from the non-institutional organisations may take place in different stages of the process. At the policy setting phase, organised interests are typically active participants in the consultation process (e.g. the Water Conference hosted by the Commission in May 1996 with the participation of 250 delegates and which provided the elements for the new framework directive). After the presentation of the draft legislation, non-governmental organisations may influence the process with the preparation of position papers on the legislative texts and "lobbying" for the inclusion of their proposed amendments. Different coalitions between different interests and European institutions may emerge on an issue-by-issue basis. For example, measures that aim to reduce the concentration of certain pollutants in water may find the Parliament, environmentalists, water suppliers and consumer organisations in the same side and the production sector with some Member States on the other. Consumer organisations and the water suppliers however, may switch camps in other issues such as in ecological measures that may carry a high cost burden to the consumer or regulation of standards for drinking water that may imply higher treatment costs or greater risk of non-compliance for water suppliers. This "loose" formation of policy coalitions implies an unpredicatable and flexible policy process.

Another important point to discuss is the differentiation between the actors active in the formulation of the policy process and the actors responsible for its actual implementation at the national and local levels. Especially with respect to water policy, what is important to note is that at a European level, water-related decision-making falls in the "environmental sphere" (i.e. Council of Environment Ministers, Directorate General for the Environment, Environment Committee of the European Parliament), though at a national and local level, relevant decisions are to be taken by actors in the "economy" or "development" sphere, with completely different perceptions of the issues. In Greece, for example, water management falls under the competency of the Ministry for Development. In a recent inter-ministerial discussion between the Greek Ministries of Development, Agriculture and Environment, the Ministry of Development rejected the proposed framework directive in almost all grounds. The Minister of Environment, however, with a considerably more positive approach towards the directive, was the one to represent the country in a Council of Ministers also generally positively inclined to the legislation, and of course could not maintain the tough position of the Ministry of Development in the passing of the legislation. The negative implications, however, for the future implementation of the framework directive in Greece need no mention. Similarly, even at a European level, the environmental objectives of water policy are often poorly reflected in the decisions relating to Regional policy and the allocation of cohesion funds.

The stance of institutional and external actors to the new framework directive is of great importance. The European Parliament, has criticised the proposal and developed its amendments from its perspective of clearer environmental rules set at a European level, strong enforcement, less room for derogation and more public participation. After a call of the Parliament for clearer definitions for good ecological and chemical quality of water, the Commission came up with a revised and much more detailed technical annex to the proposal where descriptions for the classification of waters (e.g. based on biological, hydro-morphological and physico-chemical parameters) are given and rules for the determination of

sites to monitor and sampling frequencies are more explicitly given. The Parliament has also proposed an earlier public participation process in the formulation of the river basin management plans, and not only in the implementation phase. Moreover, the Parliament put much emphasis on transparency in the measures taken and monitoring of progress and has proposed more frequent implementation reporting both by Member States and by the Commission and biannual conferences to discuss progress. Another problem, which touches the heart of the directive, is the fact that, as the directive stands, Member States cannot be held responsible for not meeting the requirements of the directive; their legal obligation is to prepare a plan to target the status objective but not to actually achieve them. This seems to be a major drawback and in practice may lead to an unsuccesful implementation of the policy, where again Member States may try to be seen to be complying, setting up river basin agencies and plans, but not taking the necessary "painful" measures. Finally, as discussed above, one of the main "friction" points of the directive will be the creation of a specialist committee, which although it will include representatives from the Member States and take decisions by qualified majority, seems to leave the Parliament with much discontent.

The Council has reacted, generally, positive to the directive without major objections to its requirements. As the directive describes framework action, its exact costs and implications are difficult to realise at this stage, and therefore they do not create opposition, as for example changing standards in the drinking and bathing water directives. However, the Member States have taken care to leave the room as much "open" as possible for implementation. Amendments in the first common position of the Council (11th of March 1999) relaxed the time-scale of the directive, increasing the initial period of implementation from 13 to 16 years (10 years to prepare plans and 6 years more to achieve specific targets) and adding an additional deferment up to three times of 6 years, Commission's authorisation needed only for the third period. The Commission has been unsatisfied with these developments; the Commissioner characterised the directive as "watered down too far" and sought unsuccessfully to reduce the 16 years of implementation to the planned 13 and the additional 18 years deferment time-scale to 12.

Clausures that caused controversy, and especially that on the "full cost recovery principle", were "watered down" in the preparatory phase of the directive and before the proposal was officially available. Southern Member States reacted strongly on the prospect of having to charge the heavily subsidised irrigation water at full price. As a result, derogation from the requirement for Objective 1 and 2 regions was foreseen, in essense excluding the poorer, rural Mediterranean regions.

The new directive has also provided an interesting "case-study" on how the inter-institutional politics in environmental policy will work in the post-Amsterdam Treaty period. The Parliament reacted fiercely to an initial common position reached in the Council before the first reading of the directive in the European Parliament and characterised it as an attempt of "usurping Parliament's powers" (officially the Council should adopt a common position only after receiving the amendments from the first reading in the European Parliament). As a response and in order to signal its discontent the Parliament decided to uphold the whole procedure, causing a delay of up to a year given the Summer 1999 European elections; this of course served its purposes, as the proposal would then fall under the activated Amsterdam Treaty's co-decision procedure, where the role of the Parliament is considerably strengthened. For the first time an informal "pre-conciliation" "tri-institutional" process was set, where delegates from all three institutions met to negotiate their positions and reach an informal agreement before Parliaments' and Council's first positions in the directive. In essence, this is an informal setting for the conciliation committee that would in any way have to be set up as part of the co-decision procedure as an early agreement would be unlikely to be reached. The Commission and some national delegations questioned the scope of this "pre-"conciliation" procedure, as they thought that issues negotiated prior to the Parliament's first reading would weaken Council and Commission's positions later in the process. In any case the two

institutions integrated into their respective opinions amendments concerning specific provisions for wetlands, maritime surveillance, endocrine disrupters, public consultation and direct discharges into ground water. All and all the initial 300 amendments put forward by the Environment Committee of the European Parliament were reduced to 85.

The future of the policy and fate of the Union's water policy for the first decades of the next century will soon be decided in the discussions between the three institutions. The Commission has provided an innovative and "mature" piece of legislation which has effectively reconciled, at least "on paper", in real life conflicting principles such as environmental protection, subsidiarity and deregulation. The effect that the legislation will have in improving the deteriorating condition of the Union's water will depend much on the will of the Member States to take the necessary action. There is not much room for optimism, given the experience from the implementation of past legislation and the great freedom in implementation allowed by the framework directive, but perhaps the directive will help to set up the necessary organisational structures and mechanisms in the Member States; drawing hope from the history of the drinking and bathing water directives, the triggered activity in water management may help to bring the relevant issues at the forefront of the public agenda and to press Member States to achieve eventually the agreed objectives.

7. In search of a Theoretical Pattern

In the previous sections the evolution of European water policy was critically discussed from a historical perspective. A short-term, "snapshot-like" observation of policy formulation processes and actors in any specific water directive may suggest a policy development process in the form of Cohen's "garbage can" [Cohen at al, 1972], where organisations are "loose collections of ideas" discovering preferences through action rather than rational choice, or in the lines of Kingdon's model of policy streams as "primeval soups", where ideas float around, confront one another and combine [Kingdon, 1984]. Both metaphors suggest that the policy formulation process is as an outcome a function of the complex and unstable mix of the related problems, participants and resources. Richardson (1997), in his analysis of the policy process for the revision of the drinking water directive, finds that the "garbage can" model suggests itself for describing water policy; EU water policy, it is argued, is characterised by the model's features of problematic preferences, "learning by doing" action and fluid participation of "audiences" and decision-makers in particular choices.

However, from a long-term, historic perspective such as that presented in the present paper, there emerges a much more regular and overall rational process of policy development, based on a closed loop of "staged" steps.

The process resembles at its initial stages Down's (1972) environmental issue attention cycle. His model builts on a series of stages, starting with pre-problem knowledge and awareness building, followed by an "alarmed" discovery of the problem and urgent public quest for action and then an awareness of costs and a consequent decline of public interest resulting in quiescence.

The particular feature however, of the European environmental policy process is that the quest for action is taken up at a higher, "European", level where a whole process of institutions, personalities and pressure groups (as that described in the previous section) is initiated. The later decline of public interest at the local level becomes irrelevant to the fate of the policy process which develops a momentum of its own. Costs also do not impede the development of the legislation at its formulation phase, as they are much less clearly defined and difficult to estimate at a supranational, European level. The policy then comes in existence and the costs are realised much later at the implementation phase, affecting both the success of

implementation and pressing for a revision of the policy. Figure 2 illustrates graphically this process:

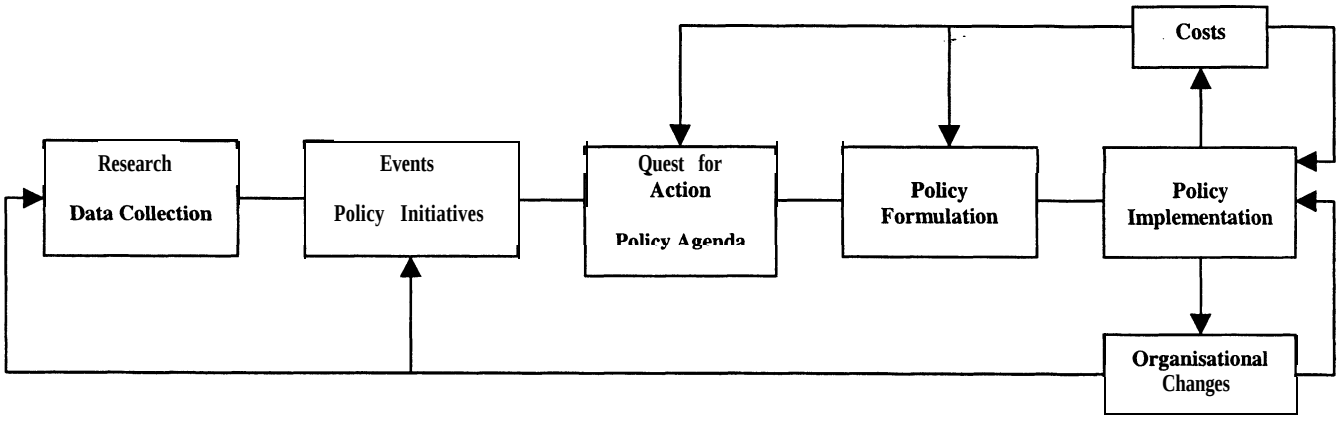

Figure 2: An illustration of the EU water policy process

A pre-problem phase of research and data collection/reporting sets the issues (e.g. need for stricter drinking water standards, degradation of ground waters, etc.). Specific events and media attention in the Member States may be one force of action, though policy may also to an extent be initiated separately at a European level. For example, drinking water policy was as much the response to an increased public concern for the quality of drinking water, as well as an initiative of the Commission to establish its competency in environmental policy. Similarly, the new framework water policy is as much a result of the increasing public concern for the deterioration of the aquatic environment, as much as an internal institutional process of simplifying and integrating legislation. The next stage is the setting of the policy agenda culminating in a typical quest from the Council for the development of action in specific areas. This initiates the open, "garbage can" policy process of policy formulation described in section 6, and the final adoption of the policy. At the implementation phase costs are realised, not only with the result of impeding effectual implementation but also shaping responses to new legislation or even, pressing for new "cost-reducing" revision of legislation. Positive side-effects may be generated as a result of legislation-induced organisational changes which may strengthen implementation, initiate new research and bring new issues at the forefront (see section 2). The process should not be viewed as a static model, but as an evolving "spiral" which unfolds in time and where issues and action develop as a result of "real" environmental changes and complex European-level politics.

8. Reflection and Prospects

Water policy is the backbone of EU's environmental policy and the "litmus test" for the kind of developments to be expected in environmental policy in the coming years. European Community's early policy for water targeted public health issues through the setting of standards for the quality of drinking and bathing waters and the control of discharge of particularly dangerous substances. At these early times, the Community lacked a competence for developing an environmental policy and these measures were justified as setting harmonised environmental rules for competition in the common market. The directives, in virtue of their nature, drew much public attention in the Member States, which in turn created considerable pressure in the more developed nations for compliance and further measures to achieve the standards. Moreover, the directives helped the European Community and the Commission to create a positive "image" as the protector of Europe's public health and environment, further strengthened by the official assignment of the competence for a common environmental policy in the Maastricht Treaty.

As the costs implicated in the implementation of this first wave of legislation started to be realised, so did the continuous deterioration of Europe's aquatic environment. The decision to extend the scope of Community's policy to the protection of the environmental value of waters coincided with the prevalence in the political arena of calls for decentralisation and deregulation. Water policy was caught within two opposite forces: one asking for more legislation to account for environmental concerns and one for less legislation in view of the high costs involved in implementation; politicians from the Member States often echoed both positions.

The second wave of legislation of the late 80s and early 90s tried to reconcile all these different needs and priorities. Waste water and nitrates use in agriculture, two key sources of water pollution, were first targeted as a response to the call for more environmental protection. On the other hand, the drinking and bathing water standards were to be revised, not only to reconsider the implicated costs but also in order to "tune" them with progress in scientific knowledge. Directives of secondary importance, such as those for fish and shellfish waters, became the easy targets of the call for less regulation.

The complex legislative picture resulting from the piecemeal development of the directives, the absence of a clear piece of action for the environment and the various revisions on course, asked for a major re-thinking of European water policy. Framework action at a European level setting the objectives to be achieved at the national and local levels, provided the best approach to reconcile the quests for subsidiarity and environmental protection. The new proposed framework directive for water attempts to integrate all other legislative pieces under one common structure, with the guiding ultimate objective of "good" status of all surface waters. Adopting also the prevalent notion of integrated water resource management at the level of the hydrographic basin, the directive asks for the establishment of river basin agencies and plans in the Member States as the organisational structures and mechanisms through which the ultimate objective will be achieved.

The successful "public health" directives for drinking and bathing water were nonetheless left unaffected by the new directive, their revision following its own course, where upon a strong debate was built around the scientific validity of the parameters, precaution and costs.

The future of the Union's water policy for many years to come is to be decided in the final version of the framework directive. Water policy formulation is a relatively open policy process and in addition to the three main European institutions, accessible to outside organised interests. It is also characterised by the central role played by a "pro-environmental" European Parliament, whose institutional power is to increase through a new co-decision procedure foreseen for the adoption of the water directive, where the Council will

have to reach a negotiated consensus with Parliament's position. In general, Member States in the Council of Ministers without confronting face to face any of the requirements of the new directive, have "watered down" its implementation time-scale to the extent that its intended effects would have to wait a long time to be seen.

The new model of environmental policy developed by the European Commission in the new framework directive, at least on paper, provides an innovative and "intelligent" reshape of EU's role. The EU resumes the responsibility to set the general objectives-to be fulfilled by the Member States and sets the common mechanisms to achieve them, refraining from setting exact standards unless these concerns are critical for public health uses. This approach couples successfully subsidiarity and environmental protection, through "tailor-made" decentralised action at the local level. Nevertheless, experience from past implementation does not allow one to be optimistic about the actual results of such an approach, given the reluctance, especially of the poorer Member States, to face the full costs of the necessary environmental improvement when the time comes. The framework directive however through the establishment of new structures and mechanisms for water management, provides also the means to attract once again public attention to environmental water issues, open-up and create new administrative structures initiating a new policy and action cycle and bringing a new spirit of changes in water management. The new water directive has certainly the material to become a "new jewel" in the Union's environmental policy; it remains to be seen whether the Member States will make it a glowing one.

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